

profitable per unit of labor as the market reached saturation, attitudes changed. Strictures on the activities of slaves, and of free blacks as well, increased as the fear of rebellion and the economic necessity to get more work out of the slaves increased. By the beginning of the eighteenth century blacks could not assemble in groups of more than four and needed written permission to leave their home plantations. Patrols enforced the new strictures. Discipline increased as well. One “unhappy effect of owning many Negroes,” planter William Byrd wrote, “is the necessity of being severe. Numbers make them insolent, and then foul means must do what fair will not.”

As the social chasm between blacks and whites deepened and the treatment of slaves grew harsher, the justifications for their social status and economic condition slowly congealed into a virulent racism. That racism proved to be a cancer in the body politic of the United States that would cost much blood and much treasure to excise. Indeed, only three hundred years later is it at long last—and now rapidly—vanishing.

That black slavery and the racism it engendered came about through an attempt to alleviate a chronic American economic problem, a shortage of labor, is of course no excuse. But it is at least an explanation. The most grievous of our self-inflicted wounds and our greatest moral failing as a people was acquired innocently and without forethought.

With the success of tobacco as a reliable export crop, Virginia’s economic viability was soon assured. The English-speaking people were in the New World to stay.

## Chapter Two

### IN THE NAME OF GOD AND PROFIT

THE GOOD THING ABOUT an economic learning curve is that a society usually has to climb it only once. None of the other colonies that would one day form the United States had nearly as difficult a time as Virginia in reaching economic viability.

Maryland, next door to Virginia, was formed in 1632, when King Charles I granted his friend Cecilius Calvert, second Lord Baltimore, about twelve million acres north of the Potomac River and south of the fortieth parallel of latitude. Calvert, in gratitude, named the new colony for Charles’s queen, Henrietta Maria. Maryland was thus the first proprietary colony, its government in the hands not of a corporation but of a private individual. Baltimore hoped both to establish a colony where his fellow Catholics could find a refuge from the disabilities they suffered in England and, of course, to derive a handsome income from his vast landholding, nearly a fifth as large as all England. The first two ships bearing colonists, the *Arc* and the *Dove*, arrived in 1634.

Baltimore sent his younger brother, Leonard Calvert, to serve as governor, presiding over a government similar to Virginia’s. And although Catholics never constituted a majority in Maryland, the Toleration Act

passed by the colonial assembly in 1649 guaranteed the rights of all Christians (the colony's few Jews, although unprotected by the Toleration Act, were never persecuted). It was the first such legislation in American history.

Maryland flourished quickly. Its original Indian inhabitants did not prove troublesome, and its rich soil and warm, humid climate were perfectly suited to growing tobacco, which, thanks to Virginia, was already a proven moneymaker. Further, Maryland's long frontage on Chesapeake Bay, with its highly indented shoreline, gave much of its land easy access to cheap freight transportation.

Calvert granted generous head rights to immigrants to encourage immigration to the colony, although charging a quitrent of 4 shillings per hundred acres. The quitrents were, in legal theory, feudal dues. In practice, they were a land tax. As in Virginia, a landed gentry, owners of often thousands of acres, soon emerged, along with a far larger number of "middling planters." Freeman, without land, and indentured servants made up the rest of the early population, with slavery, as in Virginia, slowly increasing as the plantation economy developed.

The other seventeenth-century southern colony, Carolina, was also named for royalty, in this case King Charles II, who granted it to a group of eight favorites, known as the Lords Proprietor. But the impetus for forming the new colony came not from England but from the British West Indies, specifically Barbados.

By 1670 sugar had come to dominate the economies of the chain of relatively small islands that ran north from South America before swinging westward toward the far larger Spanish island of Puerto Rico. The islands had been largely ignored by the Spanish, who thought them too small to bother with. This allowed British, French, and Dutch pirates to seize control of them and use them as bases from which to attack Spanish shipping. By the middle third of the seventeenth century, however, the islands were beginning to settle down as permanent residents took up

agriculture, principally tobacco, and the various countries began asserting political control.

At first the West Indies attracted far more settlers than did North America. In 1650 more English emigrants lived in the Lesser Antilles than in New England and the Chesapeake combined. But the Chesapeake outdid the Antilles in producing tobacco, and the islands needed a new crop. Sugar was the answer, for Europe had developed an insatiable appetite for the product that came from sugarcane. Cane is a tropical plant that originated in Polynesia, but by the sixteenth century was widely grown in areas around the Mediterranean. As Europeans began exploring the Atlantic, Portugal and Spain introduced sugar production to their new island possessions such as Madeira and the Canaries.

The Portuguese then introduced sugar to Brazil and the Spanish to the Greater Antilles. They also introduced black slavery to the Americas, for sugar is a crop that requires backbreaking labor in the tropical sun. It also requires more capital than most plantation crops to buy the equipment and buildings necessary to process the cane juice into sugar.

European consumption of sugar was growing at a rate of about 5 percent a year, thus doubling demand every fourteen years on average. Sugar, properly financed and with enough production to use economies of scale, became one of the great cash crops in world history, making the big sugar planters rich beyond dreams.

As a result, when sugar production came to Barbados, only 166 square miles in size and already densely populated with European settlers, a Darwinian struggle among the landholders developed to acquire enough land to make sugar production as profitable as possible. Between 1643 and 1670, the number of landholders with more than a hundred acres fell by two-thirds.

The Lords Proprietor of Carolina (the colony would not be formally divided into North and South until 1712) wanted to populate its new colony on the mainland of North America with the men who could no

longer make a living in Barbados. In 1670 they enticed two hundred with generous offers of land, 150 acres to each member of a family with only a modest quitrent that wouldn't be collected until 1689. And they granted 150 acres additional for every slave imported.

They also offered a formal constitution that had been written for Carolina by one of the Lords Proprietor, Lord Ashley, soon the Earl of Shaftesbury. Ashley, to be sure, had a good deal of help from his personal secretary, the political philosopher John Locke—a man whose writings would have an immense influence on the Founding Fathers a century hence. The constitution granted religious liberty to all believers and an assembly with control of local taxes. The constitution even provided for two degrees of peerage, entitled landgraves and caciques (pronounced ka-SEEKS) who were to be given vast land grants (forty-eight thousand and twenty-four thousand acres respectively).

Not surprisingly, this “extraordinary scheme of forming an aristocratic government in a colony of adventurers in the wild woods, among savages and wild beasts,” as the South Carolina historian Edward McCrady described it, did not long survive intact its encounter with reality. But South Carolina would be the most aristocratic of the American colonies. As its first governor, the Lords Proprietor appointed the Barbadian planter Sir John Yeamans, who had ruthlessly clawed his way to the top of Barbados's social and economic structure, murdering one rival and shortly afterward marrying the man's widow. One of the Lords Proprietor said of him, “If to convert all things to his present private profit be the mark of able parts, Sir John is without doubt a very judicious man.”

A thriving community was soon established at Charles Town (the name was shortened to Charleston in 1783), where the Ashley and Cooper rivers (named for Lord Shaftesbury, whose family name was Ashley-Cooper) came together in Charleston harbor. By 1700 the population of the colony had reached about sixty-six hundred (thirty-eight hundred whites and twenty-eight hundred black slaves).

At first the economy of the colony, too far north to grow sugar, depended on trading with the Indians of the interior. The Appalachian Mountains, a formidable barrier farther north, trailed off into modest hills in what is now northern Georgia, making it easy for traders to reach deep into the interior. As early as 1707, the governor of Carolina boasted that “Charles-Town Traded near 1000 Miles into the Continent.”

The area was too far south to produce good furs, but in exchange for blankets, cloth, metal goods, guns and ammunition, rum, beads, and other European manufactures, the Indians supplied deerskins, which were shipped to Europe to be made into bookbindings, belts, gloves, and whatever else required soft, pliable leather. This was no small trade. Deer were very plentiful, and with firearms the Indian hunters could kill far more than previously, while the animal's wondrous fecundity kept the population stable. Between 1699 and 1715, Carolina exported an average fifty-three thousand deerskins a year to England, worth some 30,000 pounds.

Lumber from the colony's abundant pine forests was much in demand in the West Indies, and naval stores, such as tar, came from the same source. In 1717 Carolina exported forty-four thousand barrels of tar.

Livestock also became a major export, especially to the West Indies, where every inch of land was given over to the immensely profitable sugar crop. Cattle and pigs thrived in the lush, marshy lowlands and forests. Allowed to run free in the unsettled parts of the colony, the herds were often tended by black slaves, who had learned the tricks of the trade herding animals in Africa. Many of the techniques of the cattle industry associated with the West, such as branding, annual roundups, and cattle drives, were actually first developed in early South Carolina. Even the storied American word *cowboy* was first applied to the black slaves who herded cattle in colonial Carolina.

But what made the Carolina economy was rice. It was supposedly introduced in the 1690s by one of the early landgraves, Thomas Smith.

But the demanding techniques of its cultivation were learned from slaves who had cultivated rice in West Africa. The extensive tidal marshes of the Carolina low country, once diked to control the water flow, were ideal for rice growing, and the West Indies, the northern colonies, and England provided ample markets. The result was a bonanza. Carolina exported four hundred thousand pounds of rice in 1700 and forty-three million pounds forty years later. The so-called Rice Kings, families with names such as Middleton and Ball, became the richest British subjects in North America as Carolina rice added about a million pounds sterling a year to the GDP of the British Empire.

Later indigo, a plant that yielded a blue dye that was much in demand by the now burgeoning British cloth industry, which gave rise to the Industrial Revolution in the middle third of the eighteenth century, became a second highly profitable staple crop. Indigo, rice, lumber, and livestock made Charles Town the busiest port in the colonial South and its largest town, richly adorned by the houses of the wealthy merchants and planters, and the churches and institutions they built, such as the Charleston Library, the third oldest public library in the United States.

Because Carolina and the Chesapeake colonies found crops that had large export markets and could be produced more cheaply than elsewhere, they developed to a large extent as plantation economies. Because of economies of scale, these export crops came to be produced more and more on large landholdings, worked by large numbers of black slaves. This, in turn, produced highly stratified societies with a small, rich class of great planters who dominated the middling planters, the landless freemen, and, as a result, the politics of each colony.

Plantation economies, dependent on one or two cash crops, usually fail to develop other parts of a well-rounded economy. Charleston was the only place in the South that merited the term *city*, even by colonial standards. Local manufacturing languished as economic resources were devoted to the crops that were so profitable, and the southern colonies were thus dependent on importing needed goods and even foodstuffs

from England and New England, which, lacking a cash crop, had developed very differently.

NEW ENGLAND WAS NOT FOUNDED by men bent, first of all, on adventure and profit. Instead, the most important reason for settling there was to build a “city on a hill,” a place where saints—those destined to be saved—could live, unmolested by corruption, according to God’s commandments.

But that city, to be sure, is a project still under construction after nearly four hundred years. And even saints, in the short term, have to eat, buy necessities, and pay for the costs of crossing an ocean to establish a New Jerusalem in what one Puritan called a “howling wilderness.” Nor were the Puritans in the least averse to prosperity in this world as long as the worship of God came first. Indeed, they regarded it as a sign of God’s grace, a sign that the individual was indeed saved. Sixteenth- and seventeenth-century merchants, many of them Puritans, would often write at the head of their ledgers, “in the name of God and profit.”

They gave their own chances of prosperity a considerable boost as well by firmly believing that idleness was the devil’s workshop and behaving accordingly. Puritans were always *doing*. The Jacobean playwright Ben Jonson gave a comic Puritan character in *Bartholomew Fair* the all too apt name of Zeal-of-the-Land Busy.

New England was not like the southern colonies in many ways besides the first impetus behind its founding. The climate was much cooler (but also much healthier), with a short growing season. And the soil was stony and thin, the landscape having been largely scraped clean to bedrock by the last glaciation of the ice age. (The soil pushed off New England by the glacier became Long Island, Martha’s Vineyard, Nantucket, and Cape Cod.)

Nor were the early immigrants similar, other than being English. The immigrants to Virginia and Maryland came largely from southern En-

gland and were often desperately poor, while a few came from wealthy, landowning families. The Puritan emigration centered on East Anglia, the flat, agriculturally rich land that bulges out into the North Sea north-east of London as well as from the Home Counties, the most commercially developed part of the country. More, many of the Puritans were what today would be called middle class: small landowners or tenant farmers, shopkeepers, and skilled craftsmen, along with a good number of professionals such as doctors, lawyers, and especially clergymen.

Because many of its adherents were middle class and believed firmly in reading the Bible, early New England had perhaps the highest literacy rate in the Western world in the seventeenth century. When new towns were founded—as they were at an astonishing rate—a school was built almost as soon as a church. The Massachusetts Bay colony founded a college, Harvard, only six years after settlers arrived in Boston, and more than half a century before Virginia had a college of its own, William and Mary. A printing press was in operation in Boston as early as 1640.

Most of New England's immigrants were able to pay their own way and bring their families with them when they came. But they brought relatively few indentured servants and imported even fewer slaves, although slavery violated no tenet of their strict religion. While the ratio of men to women in early Virginia was about four to one, in New England it was only six to four. With a more nearly normal balance between men and women, New England society did not go through a "wild west" phase before settling down. Further, the deep religious commitment of most of its early settlers, and firm leadership of such men as John Winthrop and William Bradford, ensured that that society would be far more law-abiding than what developed in the southern colonies.

And because families could be more easily established and the healthy climate allowed more children to reach maturity, New England's population grew very quickly. Only about twenty-one thousand people

immigrated to New England in the seventeenth century, but by the end of that century the population was ninety-one thousand, more than the white population in the Chesapeake, which had received many more immigrants.

Both Plymouth and Massachusetts Bay colonies were founded by joint-stock companies. The members of these corporations who came to New England were known as planters. Those who remained in England and invested money in the enterprise were called adventurers, a word that is still echoed today in the term *venture capitalist*.

These adventurers, while as anxious as any to build a New Jerusalem, were also hoping for a return on their investment as soon as possible. When the *Mayflower* returned to England in the spring of 1621 in ballast, the company directors wrote Governor Bradford a stinging letter admonishing him for not sending back a load of sellable goods.

The stony soil of New England made a highly profitable cash crop such as tobacco unlikely, and New England agriculture would never produce export crops in large quantity, although New England was an exporter of cattle to the West Indies. But if the soil was unpromising, the surrounding seas were rich with possibilities.

Captain John Smith had explored the coast of New England in 1614 and gave the area its name. He had, as always, been hoping to find gold. When he didn't, he set his men to fishing for cod.

Cod, a fish that can grow up to two hundred pounds, had been a staple of the European diet for centuries. Dried and salted, it would keep for months and was one of the main sources of animal protein. The traditional European coddling grounds had been in the North Sea and westward toward Iceland. Then, in the fifteenth century, Basque fishermen had discovered far richer areas off the east coast of North America. Cod prefer fairly shallow waters, and a series of banks off New England and Atlantic Canada provide large areas of exactly that. Further, the south-flowing, cold Labrador Current and the north-flowing, warm Gulf

Stream meet over these banks, roiling the waters and stirring up large quantities of nutrients. The result is cod heaven, the richest fishing grounds in the world.

There were English fishermen living in New England even before the Puritan migration began in 1620, in villages in Maine, New Hampshire, and Massachusetts north of Boston, especially the towns of Marblehead and Gloucester, which are fishing ports to this day. Most of these fishermen were not Puritans, but a rowdier, less educated, and far less pious group. Marblehead, although well endowed with taverns, would not have a church of its own until 1684. But the cod they brought in proved the mainstay of the early New England economy. In 1641, as the English Civil War severely disrupted the British economy, New England shipped six hundred thousand pounds of dried cod to Europe and the West Indies. Thirty years later, six million pounds of cod were shipped out of New England.

An activity in one area often has unanticipated side effects in quite another area of the intricate ecosystem that is an economy. Sometimes these side effects are good, sometimes not. In this case they were wholly good. The vast quantities of cod waste—the skin, bones, heads, and guts of the fish that were left over from processing—were plowed into New England fields as fertilizer, greatly increasing the productivity of the soil.

But cod never dominated the New England economy the way tobacco did Virginia's. It was the largest export but not the only one, for New England's economy became by far the most diverse in British North America. Besides cod, New England exported lumber, ships' masts, soap, butter, cheese, and whatever small surpluses its farmers produced of wheat, peas, oats, and other crops.

Lumber, in fact, became the great cash crop of New England and its first great industry. As early as 1655 there were more than twenty sawmills on the Piscataqua River in New Hampshire. By 1705 there were seventy. Other New England rivers had as many. By the end of the colonial era, wood would be one of the largest of North American exports.

Between 1771 and 1773 New England exported just to the British West Indies seventy-seven million board feet of lumber, sixty million shingles, and fifty-eight million barrel staves.

One of the most important uses of New England lumber was the building of the ships that carried the other products. By the end of the seventeenth century, New England had become one of the great shipbuilding regions of the world, with great consequences for the New England economy as a whole.

Shipbuilding is a very complex enterprise, requiring large numbers of workers, many of them highly skilled in a number of crafts, such as iron work, sail making, rope production, timber cutting, and barrel making. A good-sized ship by seventeenth-century standards might require the coordinated efforts of two hundred workers or more.

And while New England had higher labor costs than England, because there was more competition for the labor of its artisans, it had far lower raw materials costs, especially for the major component of sailing ships—wood. As a result, New England could build a ship for about half the cost of building one in England. In the forty years between 1674 and 1714, Boston alone averaged forty ships a year, producing more than the rest of the North American colonies combined. Indeed, it was, after London, the greatest center of shipbuilding in the British Empire, with fifteen shipyards in operation by 1700.

And New Englanders were not just shipbuilders, they were soon major ship owners as well. By 1700 only the ports of London and Bristol within the British Empire outstripped Boston in shipping. The carrying trade that New England developed extended throughout the North Atlantic, the Mediterranean, the Caribbean, and beyond. And it carried far more than just New England products and imports.

New England was well named economically speaking, because its economy was the most like England's of all the British North American colonies. With a large fishing fleet and shipbuilding industry of its own, England had small need of New England's main products. But New En-

gland had an ever-expanding need for Britain's manufactured goods. In response, several "triangle trades" developed. New England lumber, fish, and meat was taken to the West Indies and traded for sugar and salt. Those went to Britain, where they were traded for manufactured goods, principally textiles and hardware, which were then sold in New England. West Indian molasses was distilled in New England into rum and then sent to Africa and traded for slaves. The slaves were sold in the West Indies. New England fish was traded in Spain and Portugal for wine and fruit, which was sold in Britain and paid for manufactures.

New England ships also carried much of the produce of the Carolinas and the Chesapeake to Europe and the West Indies. Going wherever opportunity beckoned, New England merchants, like all merchants, sought to buy cheap and sell dear. And they earned a well-deserved reputation for doing exactly that. Their success can still be seen in the increasingly grand houses that were erected in many New England seaports by the prosperous merchants.

ALTHOUGH NEW ENGLAND developed the most diverse economy to be found in North America, it still needed to import most manufactured goods. Britain was not yet the "workshop of the world," but it was on its way as the first stirrings of the Industrial Revolution began.

Among New England's greatest needs were iron goods, which were indispensable to nearly all economic activities. Iron is one of the most abundant elements on earth, but copper was the first metal used on a regular basis. The reason is that copper is much easier to work with. Copper has a melting point easily achieved in an ordinary fire, and some copper ores, when heated, produce pure copper with no further processing needed.

But iron is never found in a pure state (except, very rarely, in meteorites) because it is chemically highly reactive, which is why it rusts. Iron's melting point is so high that special techniques, such as bellows,

are needed to reach it, and, when smelted, massive hammering techniques are needed to rid the metal of impurities such as carbon. So while artisan-ready copper can be produced by techniques available to a Boy Scout troop, iron requires an industrial enterprise.

Once the necessary technology was developed, however, by around 1400 BC, iron's superiority over copper and the harder bronze (copper alloyed with tin) was so apparent that it quickly became indispensable to civilization.

The early settlers in North America had no choice but to import the nails, horseshoes, pots and pans, plows, weapons, and a hundred other artifacts of seventeenth-century life that they needed. And because the nearest iron foundry was two months' upwind sailing away, iron goods were very expensive and thus a limiting factor in the development of the colonial economies.

But only eleven years after the fleet under the command of John Winthrop sailed into Massachusetts Bay and established the colony there, Winthrop's son, also John, was on his way back to England to arrange for the creation of an ironworks in his adopted land.

The Winthrops had been a gentry family in Suffolk, and John Winthrop the elder had practiced as a lawyer when he agreed to become governor of the projected colony. It was he who coined the enduring American phrase, "a city upon a hill." His son was also a lawyer and deeply interested in both science and commerce. In 1664 he would be elected a fellow of the newly founded Royal Society, the first American so honored.

The younger Winthrop, who had served as deputy governor of Massachusetts and governor of Connecticut, had set up a saltworks to supply the new colonies with another indispensable commodity that was very expensive to import. But to establish an ironworks he needed an economic necessity that America as yet wholly lacked: capital. The one place he could hope to get it was England, which would be the source of much American capital for more than the next two centuries.

One would think it would have been a tough sell to get capitalists to invest in a major industrial enterprise located three thousand miles away in the middle of a wilderness. But a business plan, a few salient facts, and a persuasive salesman is often all it takes to attract capital to an untried idea. Winthrop could point to one great American comparative advantage: wood. Charcoal, which is wood heated in the absence of air until it is reduced to pure carbon, is as necessary to iron production as the ore itself. England's forests were being rapidly cut down, and coal was only beginning to be exploited for industrial uses. America had an unlimited supply of wood that was free for the taking.

Winthrop argued that by using America's cheap raw materials, Massachusetts could manufacture iron goods that could be sold profitably not only in New England and the Chesapeake, but even in England itself. Winthrop must have been persuasive, as he raised 1,000 pounds from various investors, including Lionel Copley, one of England's most prominent ironmongers. Eventually a total of 15,000 pounds would be invested in the project. To give some idea of what that sum represented in Massachusetts in the 1640s, consider that the highest annual salary in the colony in 1648 was 90 pounds, paid to the Reverend Zechariah Symmes of Charlestown. (It says much, of course, about early Massachusetts that the highest salary in the colony would be paid to a clergyman.)

Winthrop, back in Massachusetts, scouted locations for his ironworks and got the government to grant his "Company of Undertakers" a monopoly on iron production in the colony for twenty-one years and an exemption from taxes. Unfortunately, Winthrop chose badly for the site of the first furnace, in Braintree, south of Boston, where both the iron ore supplies and water to power the mill proved inadequate.

With Winthrop busy with many projects, and increasingly interested in Connecticut, where he would be governor for the last thirty years of his life, the company decided to import expertise, another commodity for which this country would often depend on Britain until long after

independence. They hired Richard Leader, thoroughly familiar with running an iron business, and arranged as well to bring in several skilled ironworkers.

Leader built an ironworks in Lynn, north of Boston, on a site that is now in the town of Saugus, on the Saugus River. By 1646, only sixteen years after John Winthrop the elder had first stepped ashore, a major industrial enterprise was in operation in Massachusetts. But it got off to a rocky start, with frequent accidents as the local workmen painfully and sometimes fatally sought to learn the demanding techniques of iron production. Meanwhile, the imported workers were causing troubles of their own. Selected for their skills, not their piety, like the fishermen, they fit uneasily into Massachusetts society. The early court records of Lynn are filled with cases involving ironworkers hauled in for drunkenness, adultery, nonattendance at church, and other sins against the Puritan world order.

Dr. Robert Child, one of the English investors who happened to be visiting Boston, wrote to Winthrop in 1647, grumbling that "our Iron works as yet bring in noe considerable profit." But another investor noted that "Every new undertaking hath its difficulties." Still, by the end of the summer of 1648, the five-hundred-pound hammer imported from England and attached to the waterwheel powered by the Saugus River was pounding steadily away, driving the impurities out of the smelted iron, and John Winthrop the elder could write his son that "the furnace runnes 8 tun per weeke, and their barre Iron is as good as Spanish."

Heavy industry had come to North America. The Saugus Iron Works by that time was also displaying another aspect of the aborning American economy. In 1646 a blacksmith at the works, Joseph Jenks, received a patent for a device described as "engines for mills to goe with water," for manufacturing edged tools, such as scythes. This is perhaps the very first instance of the "Yankee ingenuity" that has so characterized the American economy, and often astonished the world, ever since.

But while the Saugus Iron Works was turning out increasing quanti-



ties of both pig iron and products made from it, it was still not producing a profit. The stockholders began pressing for changes in production and management that they hoped would make the works profitable. But matters only continued to deteriorate financially, and in 1653 the troubles exploded in a blizzard of lawsuits that reached even the attention of the man then ruling England, Oliver Cromwell, the Lord Protector.

While the lawyers argued, the works crumbled and many of the workers drifted off to other opportunities, including the new ironworks erected by Winthrop the younger in Connecticut. By 1676 the first ironworks in America was in ruins. The town of Lynn petitioned to have the dam removed so that alewives could once more run up the river to spawn.

But if the first industrial-scale enterprise in North America was a failure, the idea behind it—that there was money to be made producing iron in the American colonies—was sound. By the end of the colonial era, a hundred years hence, the colonies were producing one-seventh of the world supply of pig iron.

## *Chapter Three*

### THE ATLANTIC EMPIRE

LIKE THE NEW ENGLAND COLONIES and Virginia, New York was founded by a profit-seeking corporation. But the Dutch West India Company was a far larger concern than the startups that founded the other colonies. It had been created in 1621 and given a monopoly of trade in an area that stretched from West Africa to Newfoundland. The colony of New Netherland was established by the company at a cost of 20,000 guilders to exploit the fact that the Hudson River (called the North River by the Dutch) gave an easy entry to the source of the furs so much in demand in Europe. In the first year, the company shipped to Europe 45,000 guilders worth of furs, easily recouping the cost of establishing the colony.

In the early seventeenth century, the Dutch had the most advanced and most market-oriented economy in Europe. They invented or developed to new levels of sophistication stock and commodity exchanges, insurance, and corporate governance. They also had the most religiously tolerant government in Europe. Both the Dutch capitalist spirit and religious freedom were soon implanted in their new colony in North America. When the governor, Peter Stuyvesant, a sincere member of the